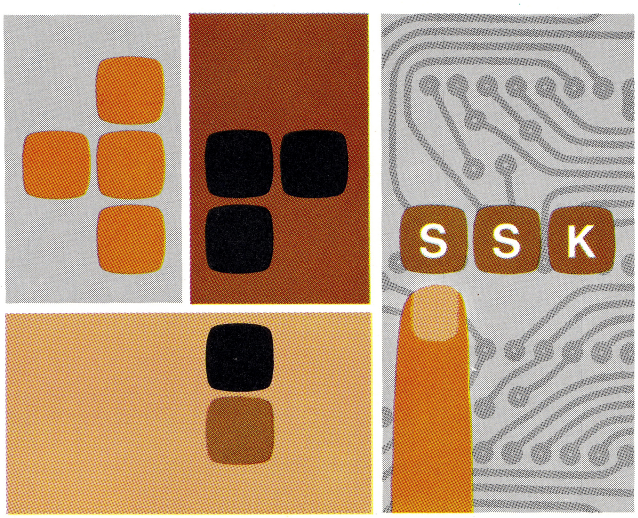
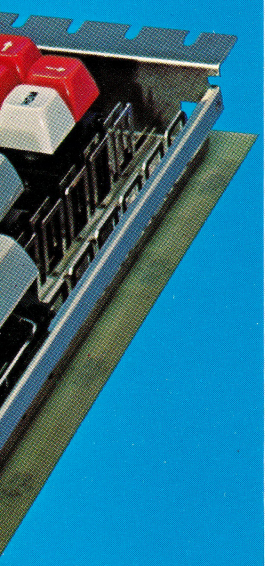
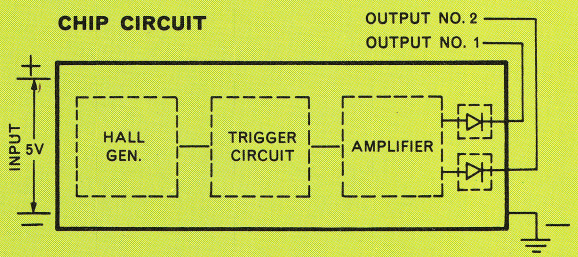
All Solid State Keyboards from MICRO SWITCH



New all solid state keyboards.. the first of their kind

To meet the needs of today's and tomorrow's generations of all solid state communications and data preparation equipment, MICRO SWITCH has developed a completely new, revolutionary keyboard switching concept . . . assembled into an all solid state wired and encoded keyboard called SSK.





A breakthrough in switching technology makes it possible!

Using the Hall effect, MICRO SWITCH has come up with a breakthrough in switching technology. An integrated-circuit has been applied as a keyboard switching element. A tiny integrated-circuit chip is actuated with a magnet mounted on a plunger. Thus MICRO SWITCH for the first time combines integrated circuitry with manual actuation.

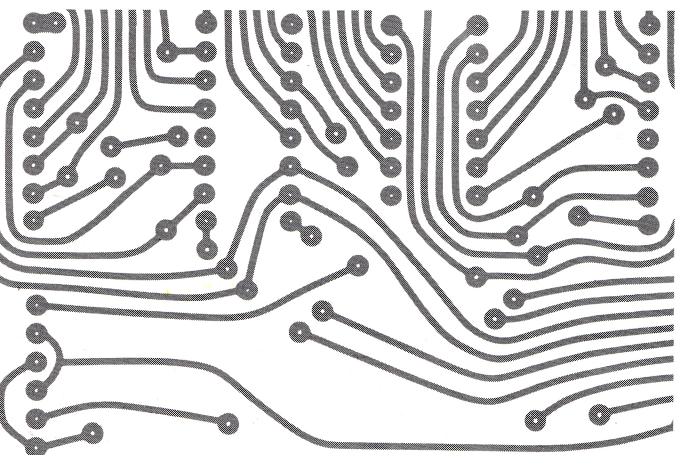
SSK, an all solid state keyboard, offers new reliability, new economy in a totally flexible package

Reliability—From key to connector, every unit of the new SSK keyboard is all solid state. The only moving mechanical part is the plunger. There are no mechanical linkages and no moving contacts to wear or fail. The result is unequalled reliability.

Economy—You get triple economy. First, the initial cost is less, tailored to your high production commitments. Second, the bounce-free output of SSK requires no special interface circuitry to adapt it to your equipment; just plug it in. Finally, being solid state, SSK is practically maintenance free; cuts your service expenses to the bone.

Flexibility

SSK flexibility adapts to your format and encoding needs. All standard key arrays and custom arrays, block or offset. Encoding of any 8-bit code (or less); hexadecimal; Baudot; BCD; USASCII mono-mode, dual-mode and trifunction; plus EBCDIC and custom codes.



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Human Factors

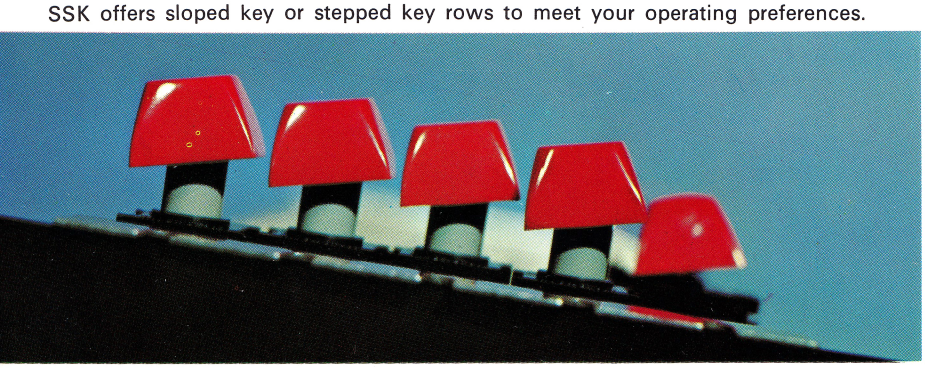
MICRO SWITCH application of the latest in human factors considerations offers you many additional features and options which will make your equipment even more attractive to your customers.

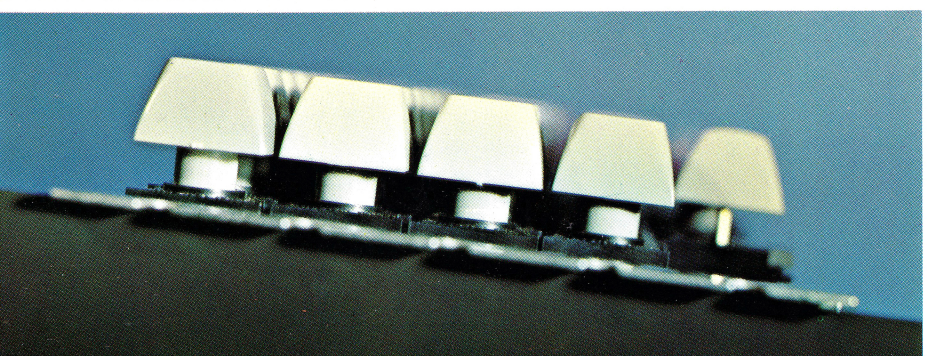
For example, exclusive Two-Key Rollover permits typing at burst speeds without causing a system error output. On words such as "and" and "the," a second key is often depressed before the preceding key is completely released. Two-key Rollover permits independent transmission of both outputs in sequence without slowing the typist or causing errors.

Custom molded-in legends are an integral part of the button; the legends will never be obscured by wear. We offer a broad variety of standard and custom key character sets in a choice of color combinations, and we have the capability to produce your special legends.

The universally accepted and proven contoured truncated key is assembled to our keyboards on ¾ inch centers. Combined with standard typewriter offset arrangements between rows, the keys permit accurate typing at high speeds without hindering the natural flow of operation.

SSK offers sloped key or stepped key rows to meet your operating preferences.





Additional options and design features

Options—Strobe without delay. This built-in option transmits separate, immediate indication to the external system that a key has been operated and the encoded output is present to be read.

Electrical monitor detector. Incorporated into the solid state keyboard design, this option initiates an audio or a visual "error" output signal.

Non-encoded keyboards. MICRO SWITCH also provides non-encoded keyboards, assembled and terminated to a printed circuit board, to offer you the option of applying your own custom encoding.

Design features—The Solid State Keyboard assembly is constructed so that you can mount it to a panel, a base plate or an enclosure... simply . . . easily. Special mounting ears add rigidity and permanence to the installation, yet the keyboard may be removed as simply as it is installed.

Also, the printed circuit boards are not depended upon to add strength to the assembly or to support the keyboard switches. Thus, they are not susceptible to fractures through normal use.

What's happening today in keyboards is what's happening at MICRO SWITCH

MICRO SWITCH has long been an innovator and leader in advancing switch technology. Experience, coupled with our extensive facilities, has enabled us to become the world's largest supplier of keyboards.

Seasoned with a deep-seated leadership attitude, MICRO SWITCH offers a capability which is simple in philosophy, yet complex and thorough in scope:

To provide our customers with the best products possible through applied professionalism in DESIGN, PRODUCTION, QUALITY ASSURANCE and SERVICE.

MICRO SWITCH provides a *real* capability which makes your keyboard supplier selection more certain.

MICRO SWITCH staff of electronics experts apply their talents to develop flexible, foolproof circuitry, such as the unique Two-Key Rollover option which permits high throughput typing at "burst" speeds without generating erroneous codes.

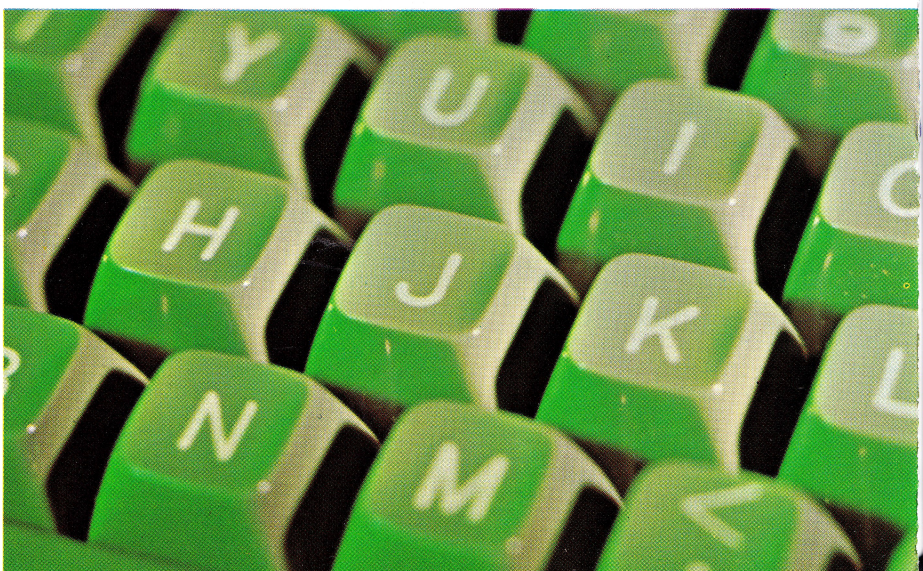
Specially designed evaluation fixtures adapt human factors principles to actual keyboard hardware for proof . . . beyond theory . . . that MICRO SWITCH designs will best meet user needs.

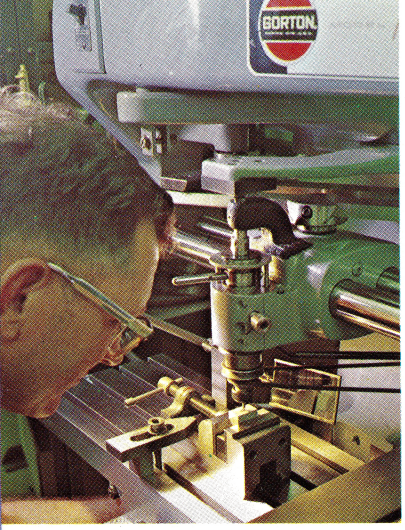
Button shapes, spacing and legending and keyboard array are also determined through logical application of detailed human factors knowledge.

Design...

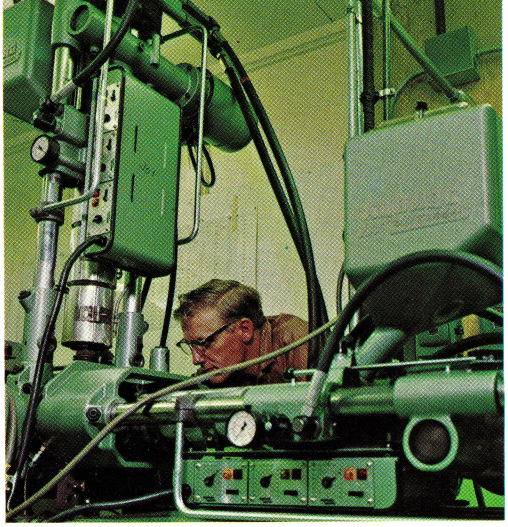
Successfully applied Research and Development

MICRO SWITCH keyboard design efforts are based on a thorough evaluation of all keyboard variables . . . human factors considerations, interfacing requirements, code generation, legending, button design and style, switching concepts and overall keyboard costs. Thorough, creative engineering made it possible for MICRO SWITCH to discover and offer the new concept of a totally solid state keyboard: a marriage of integrated circuitry with the keyboard hardware necessary for rapid data preparation.





Standard and custom legend molds are precisely engraved in our plant to provide a nearly immediate key production capability regardless of the legend needed.

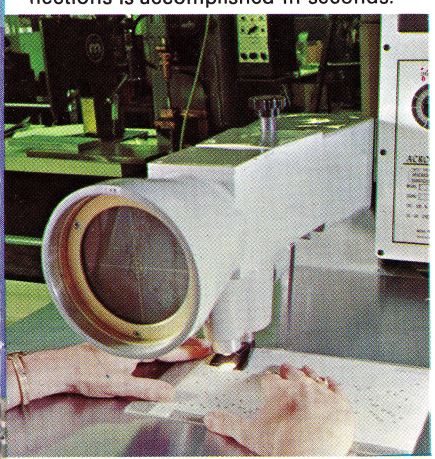


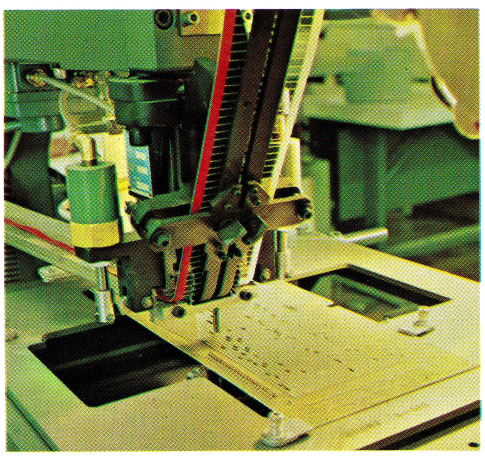
Legends are molded as an integral part of our keyboard buttons on high capacity "double-shot" molding presses. Legends cannot wear off or become illegible.

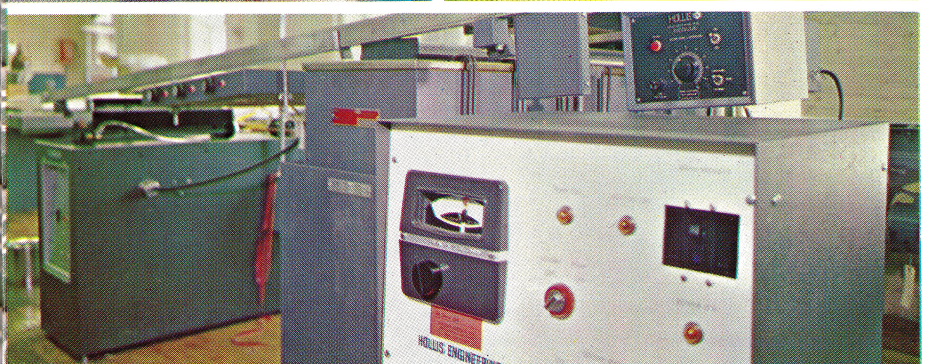
Larger than many plastics molding firms, the MICRO SWITCH plastics department produces intricate plastics components from molds designed and machined in our plant.

Ultrasonic production welding of interconnecting leads to the nearly microscopic integrated circuit chips keeps pace with other advances in production capability.

Custom templates, designed to meet our customer requirements, program the latest printed circuit board assembly machines: The drilling of circuit encoding interconnections and uniform insertion of components. Wave soldering of all printed circuit board connections is accomplished in seconds.



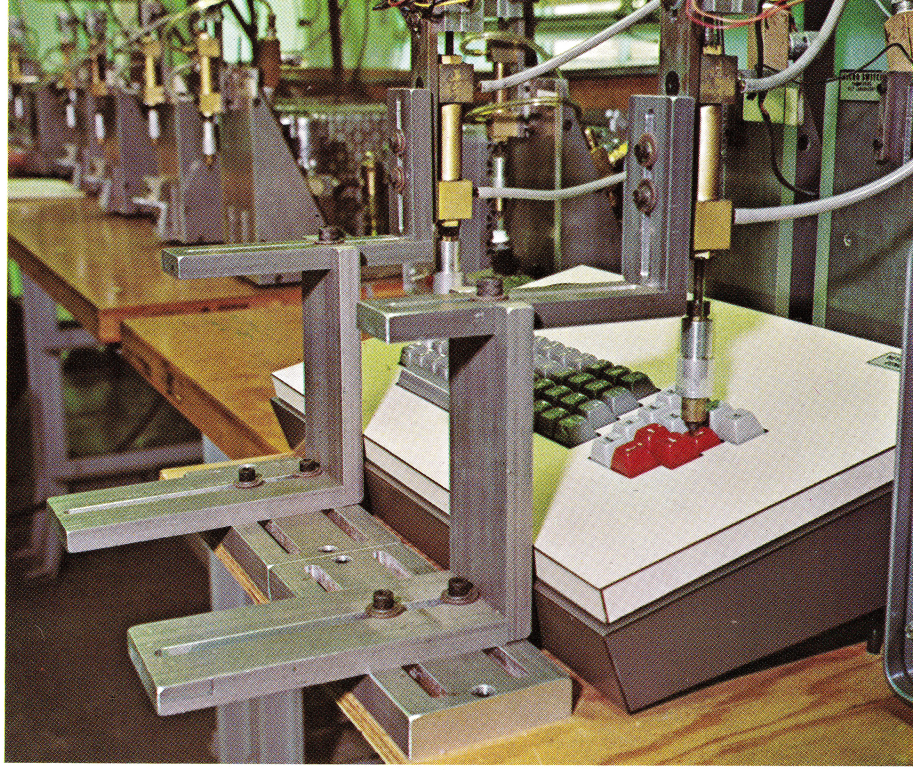




Production...

Self Reliance based on the right equipment and proven know-how

MICRO SWITCH production capability has been developed around proven techniques and abilities and modern high capacity equipment. MICRO SWITCH's vast in-plant production capability averts reliance upon outside suppliers for most keyboard components. It is geared to meet the delivery requirements of all orders regardless of size.



MICRO SWITCH keyboards are subject to the most grueling tests to prove that they will perform unerringly in your equipment. In our engineering evaluation laboratory, mechanical "fingers" simulate both "hunt-and-peck" and rapid-touch typist operation.

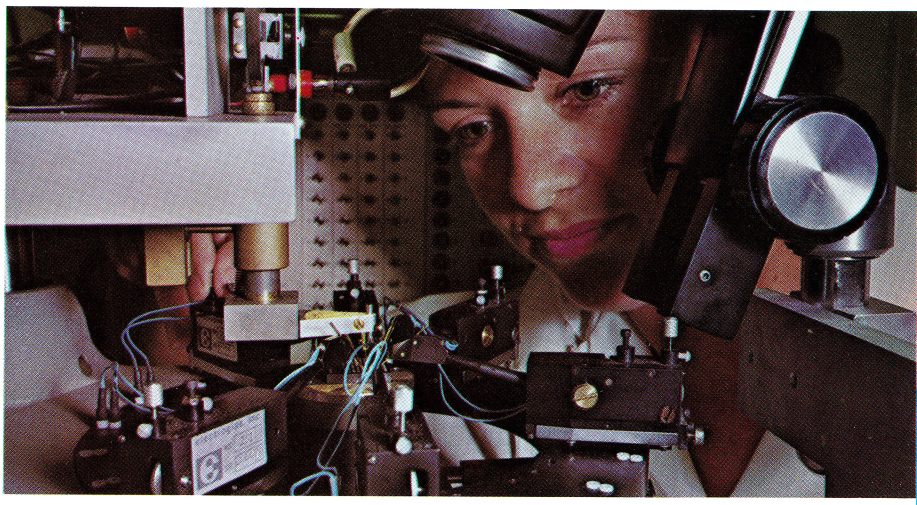
Even though they are almost too small to be seen, integrated circuits don't slip by our quality assurance checks. Chip capabilities are proven true in this "lie detector" before they are even considered for use in our keyboards.

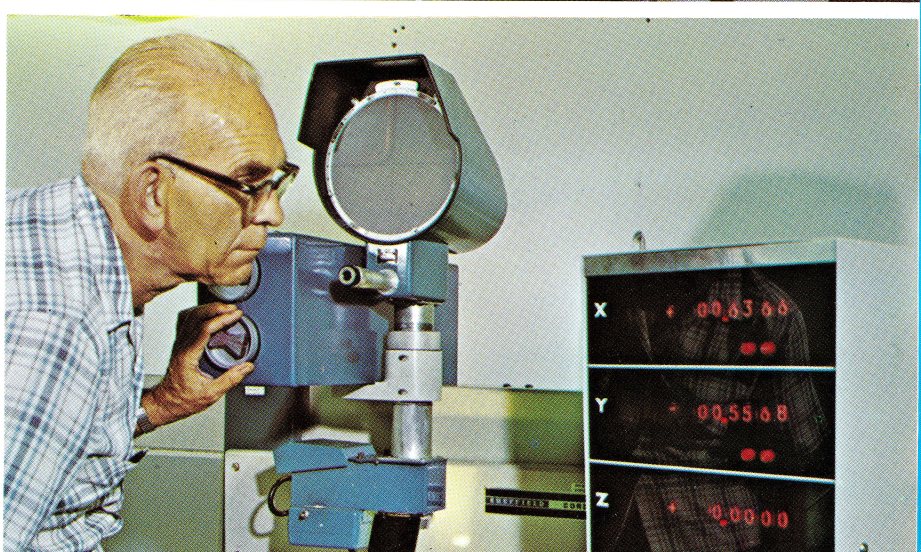
Typical of the depth of our Quality Assurance effort is this electronic triple axis coordinate measuring machine. It checks keyboard components and fabrication fixture accuracy to ten thousandths of an inch.

Quality Assurance...

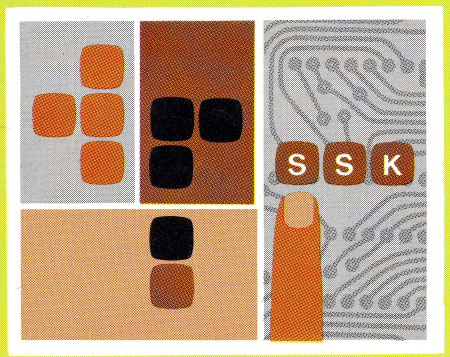
A company philosophy resulting in a total effort

Quality Assurance for the customer is everyone's business at MICRO SWITCH. It is the result of a total concern for the details that make up customer satisfaction. Our Quality Assurance program is designed to assure reliability *before* manufacturing begins, PLUS watchdog protection through every step of manufacture . . . and grueling laboratory testing of the finished product.





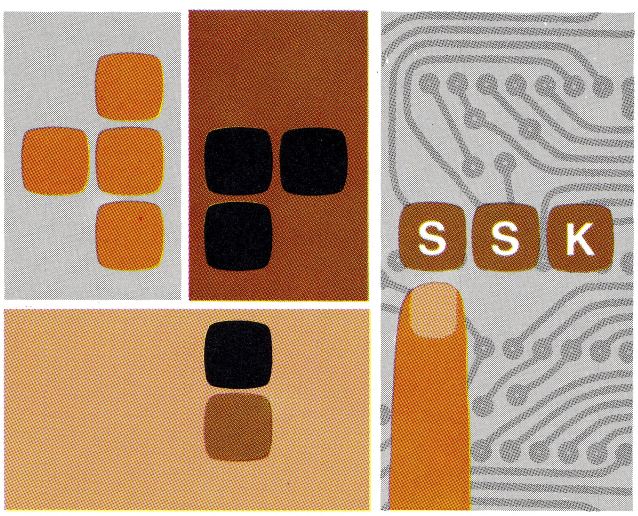
Computer-managed order processing and inventory control averts part shortages, lost orders and missed delivery dates, and assures that our commitments to you are met.



Service...

Commitments keyed to your needs

MICRO SWITCH service means a commitment to provide keyboards *as* you need them . . . *when* you need them. That service is personified in our competent field force . . . the largest in the industry. Our Field Engineers' key function is to apply MICRO SWITCH capabilities to your needs, to solve your keyboard problems, and to satisfy your delivery and other contractual requirements. They are thoroughly trained and seasoned in keyboard technology; plus, they can put our entire team to work on your project. You can be sure of prompt local engineering assistance because of a large network of MICRO SWITCH Branch Offices throughout the United States, Canada and the world.



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